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10/695,283

10/28/2003

Robert Richard Dykstra

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EXAMINER

GRESO, AARON J

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/695,283 | DYKSTRA ET AL. | |
| | Examiner | Art Unit | |
| | AARON GRESO | 1796 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 25 January 2010 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "net cationic charge" as applied to a range of values in Claim 1 is a relative term which renders the claim indefinite. The conditions for achieving a "net cationic charge" is not defined by the Claim; the Specification does not provide a

standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

It is known in the art that the test conditions for achieving a net cationic charge is solution or test condition dependent {see informational references: Brookhaven Instruments Zeta Potential Theory, pages 1- 2; and Figure 11 in Liu et al. (Macromolecules 2002 Vol 35 pp 6121-6131) and calculation method error, Brookhaven Instruments, ZetaPlus Manual page 60 updated 2002}. Appropriate action is required.

To further prosecution, as the conditions for achieving a test result are not defined, the limitation requiring a net cationic charge is taken to be met by any method including any material preparation treatment.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rollat et al. (US 2003/0017125) in view of Guskey et al. (US 6040282).
2. Regarding claim 1, Rollat et al., teach a non-encapsulated benefit agent delivery system comprising an aqueous dispersion of a water insoluble polymer (paragraph 0017), and a benefit agent (paragraph 0053) wherein the particle comprises at least one cationic monomer and one or more non-cationic monomers (paragraphs 0052, 0053). Rollat et

al., also teach the polymer and benefit agent non-polymerically associated in a liquid matrix (paragraph 0048). The benefit agent taught by Rollat et al., is identical to that of the instant application, thus the Response Factor (RF), glass transition temperature, and the Kovats Index of the prior art is inherently within the ranges set forth in claim 1.

3. The compositions also are indicated to comprise colloidal silica as a stabilizer (paragraphs 0045 and 0048).

4. Rollat et al., also teach the dispersion comprising thickening agents (paragraph 0053), but do not further disclose employing compositions with a viscosity ranging from 7000-10,000cps.

5. On the other hand, Guskey et al. teach styling shampoo compositions (Abstract) comprising hydrophilic monomers in combination with hydrophobic monomers in a manner in which to provide water-insolubility (col 7 lines 44-48). The hydrophilic monomers consist of vinyl pyrrolidone, among others monomers (col 7 lines 48-65) and hydrophobic monomers consist of C1-C8 methacrylic acid esters among others (col 7-8 bridging paragraph). The viscosity of the final composition comprises a range of 2000-12,000 cps and is indicated to be varied as needed employing salt (col 31-32 bridging paragraph).

6. As the reference indicates that viscosity is a desired property that can be varied, it is the Examiner's position that formula composition and its viscosity are result effective variables because changing them will clearly affect the type of product obtained. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result

effective variable in a known process is ordinarily within the skill of the art.” See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. In view of this, it would have been obvious to one of ordinary skill in the art to utilize appropriate formulation experimentation and testing, including those within the scope of the present claims, so as to produce desired end results.

8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rollat et al., in view of Guskey et al., to utilize salt gain the predictable result of thickening the delivery agent and adjusting the viscosity to between 5000-11,000 cps.

9. Although the Rollat compositions are identical, the reference does not further disclose compositions with polymer Tg's ranging from 50-120°C.

10. On the other hand, Guskey. et al., further teach a benefit agent delivery system wherein the glass transition temperature ranges from at least -20 °C; the reference further indicates the values are and preferably +20 to 80°C.

11. Although the teaching does not indicated an upper Tg limit, in regard to the preferred range, it is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16

USPQ2d 1934, 1936-37 (CCPA 1990); In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

12. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rollat et al., in view of Guskey et al. to meet the glass transition temperature requirements of the claimed polymer particle as optimization of a result effective variable requires only routine skill in the art (MPEP 2144.05 II A).

13. Claims 1 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hood et al. (US 2002/0058015) in view of Rollat et al., and further in view of Guskey et al. (US 6040282).

14. Regarding claims 1 and 6-9:

15. Hood et al., teach a non-encapsulated benefit agent delivery system comprising an aqueous dispersion of a water insoluble polymer particle and a benefit agent wherein the polymer particle comprises at least one cationic monomer and one or more non-cationic monomers (Abstract, Paragraphs 0020, 0027). Hood et al., also teach the polymer and benefit agent non-polymerically associated in a liquid matrix (paragraph 0027). The response factor of the benefit agent is inherently at least about 1.5 as the benefit agent of the instant application and the prior art are identical. Further, the compositions are identical; the cationic charge performance would also be expected to be in the claimed range.

16. Additionally, the polymer particle inherently has a first affinity for a low kovats index perfume raw material having a kovats index from about 1000 to about 1400 and a second affinity for a high kovats index perfume raw material having a kovats index of greater than about 1700, the first affinity being at least about 2 times greater than the second affinity as measured by Affinity Test Protocol III, as the polymer is made as taught by applicants in the instantly claimed invention. The LKI perfume raw materials collectively provide a first Average Response Factor (ARF_{LKI}) and the HKI perfume raw materials collectively provide a second Average Response Factor (ARF_{HKI}) with the perfume polymeric particle having a ratio of ARF_{LKI}/ARF_{HKI} of at least about 1.2 (examples 13 and 17).

17. Hood et al., also teach a method for making a granular or liquid composition containing a non-encapsulated benefit agent delivery system comprising at least one cationic monomer and one or more non-cationic monomers to the matrix and adding a benefit agent selected from the group consisting of flavor ingredients and perfume raw materials and mixtures thereof to the matrix; wherein the polymer particle and benefit agent are added as separate, discrete components from different sources to form the benefit delivery system and are not polymerically associated in said system (examples 13 and 17).

18. Hood et al., do not teach further the dispersion comprising a colloidal stabilizer.

19. On the other hand, Rollat et al., teach utilizing a colloidal silica in order to sterically stabilize polymer particles in a dispersion (paragraph 0048). Rollat et al., teach

the colloidal stabilizer limits the particles coalescence and yields uniform particles, thereby preventing aggregation of the particles and enabling a more homogeneous dispersion (paragraph 0048).

20. It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the benefit agent delivery system of Hood et al., by adding a colloidal stabilizer as taught by Rollat et al., in order to stabilize the particles and prevent aggregation in order to ensure a more homogeneous dispersion.

21. Rollat et al. also teach the benefit agent delivery system comprising thickening agents, but does not teach a viscosity ranging from 5000-11,000cps.

22. On the other hand, Guskey et al. teach styling shampoo compositions (Abstract) comprising hydrophilic monomers in combination with hydrophobic monomers in a manner in which to provide water-insolubility (col 7 lines 44-48). The hydrophilic monomers consist of vinyl pyrrolidone, among others monomers (col 7 lines 48-65) and hydrophobic monomers consist of C1-C8 methacrylic acid esters among others (col 7-8 bridging paragraph). The viscosity of the final composition comprises a range of 2000-12,000 cps and is indicated to be varied as needed employing salt (col 31-32 bridging paragraph).

23. As the reference indicates that viscosity is a desired property that can be varied, it is the Examiner's position that formula composition and its viscosity are result effective variables because changing them will clearly affect the type of product obtained. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result

effective variable in a known process is ordinarily within the skill of the art.” See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

24. In view of this, it would have been obvious to one of ordinary skill in the art to utilize appropriate formulation experimentation and testing, including those within the scope of the present claims, so as to produce desired end results.

25. The references do not further teach the employment of compositions comprising glass transition temperatures from 50°C to 120°C.

26. On the other hand, Guskey. et al., further teach a benefit agent delivery system wherein the glass transition temperature ranges from at least -20°C up to 80°C and preferably to 60°C (col 7 lines 25-29).

27. Also, although the reference teaches that there is no upper limit as to the value of Tg, the preferred range overlaps with the composition range of the Applicants. It is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

28. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hood et al., in view of Rollat et al., in further view of

Guskey. et al., to meet the glass transition temperature requirements of the claimed polymer particle as optimization of a result effective variable requires only routine skill in the art (MPEP 2144.05 II A).

Response to Arguments

29. Applicant's arguments with respect to claims 1-9 have been considered; some are moot in view of the new ground(s) of rejection.

30. Applicant has amended Claim 1 to further embody a limitation requiring the polymeric particle comprise a net cationic charge of about 20mV to about 80mV.

31. Reference to Wang et al., has been replaced with a reference to Guskey et al., that teaches a benefit agent delivery system comprising a polymer particle that covers a wide range of glass transition temperatures (at least -20 °C and preferably 80°C) as well as teaching the employment of appropriate system viscosity.

32. Applicant's arguments, filed 25 January 2010 regarding deficiencies of the '7125 Application of Rollat et al. {page 6 of 9}, have been fully considered but they are not persuasive.

33. Applicant argues that the reference (paragraph 0052) indicates one additional polymer is not a (meth) acrylic monomer.

34. In response: The reference clearly indicates, as provide below:

[0052] In one embodiment of the invention, the heterogeneous (meth)acrylic copolymer particle, as described above, comprises at least one additional polymer, which may or may not be a (meth)acrylic copolymer, as described above. For example, the heterogeneous (meth)acrylic copolymer particle may comprise one (meth)acrylic copolymer, as described above, and one additional polymer, which is not a (meth)acrylic copolymer, as described above.

35. That reference thus does not just simply state that the (meth) acrylic copolymer may not be a (meth)acrylic copolymer.

36. Further as to argument addressing top notes {page 6 of 9 6th paragraph}:

37. Applicant argues that benefit agents comprise top notes not disclosed by the reference(s).

38. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., fragrance top notes) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

39. The Applicant further argues {page 7 of 9 2nd full paragraph} that the reference of Hood (2002/0058015) discloses water soluble polymers in compositions.

40. In response, the reference further discloses that the material is cross-linked and not indicated to dissolve (paragraph 0005)—this is taken to indicate that the material particles do not readily solublize in water.

41. In regard to optimizing the T_g {page 7 of 9 3rd full paragraph}: Given the wide range of temperatures taught by Guskey et al., it is the examiners position that one of ordinary skill in the art would have been motivated to determine the optimal glass transition temperature range as recited in the instant claims by routine experimentation as the composition T_g's of Guskey et al. overlaps with those of Rollat et al and as Guskey et al. suggests motivation to improve upon the T_g.

42. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Examiner Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON GRESO whose telephone number is (571)270-7337. The examiner can normally be reached on M-F 0730-1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571 272 1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Milton I. Cano/
Supervisory Patent Examiner, Art Unit 1796

/Aaron J. Greso/